



Embedded Device Server

- ▶ Flexible, well-developed IP protocol stack
- ▶ TTL serial interface
- ▶ Two serial ports
- ▶ Accepts 5 VDC regulated input power
- ▶ HTTP, serial, Telnet and SNMP management
- ▶ Flash ROM for easy software upgrades
- ▶ Custom protocol support available
- ▶ 256-bit AES encryption for secure communications



Build 10/100 Base-T Ethernet Connectivity into Your Products Quickly and Economically

The Lantronix Micro125 is a board-level product for OEM users who want to embed proven mainstream Ethernet connectivity in their products quickly and economically.

Building Ethernet connectivity into a product is no simple task. It requires a significant investment in hardware and software integration – often in areas outside of core competencies. So why build it yourself when there is a better alternative?

The Micro125 embedded device server provides an integrated solution to add proven Ethernet connectivity to an existing design quickly and economically, and with a high level of flexibility.

Device networking starts with a Device Server.™ These amazing products enable most any device with serial capability (TTL) to become a fully functional member of an Ethernet network. Device Servers include all of the elements needed to network-enable your products – a processor, real-time operating

system (RTOS), a robust TCP/IP stack, a web server, and a network connection. All the connected product additionally needs is a header, providing connections to a power source and to a TTL serial port.

The Micro125 brings over a decade of device networking experience, rock-solid IP firmware, extensive applications support and advanced encryption standards to industrial and commercial environments.

Measuring only 49 x 40 mm the Micro125 can easily fit into almost any size serial device that would benefit from network connectivity. It includes a serial interface TTL connector and 10/100 Base-T Ethernet RJ45 jack. The Micro125 includes the same IP protocol stack found on the other Lantronix embedded products.

RoHS-compliant, the Micro125 meets Directive 2002/95/EC on the restriction of the use of certain hazardous substances in electrical and electronic equipment.





Features

Protocols

ARP, UDP, TCP/IP, Telnet, ICMP, SNMP, DHCP, TFTP and HTTP

Networking Interface

RJ45 (10/100Base-T) Ethernet

Serial Interface

TTL level (Asynchronous)

Data Rates

300 bps to 230 Kbps

Serial Line Formats

Characters: 7 or 8 data bits

Stop bits: 1 or 2

Parity: odd, even, none

Modem Controls

DTR, RTS, CTS, DCD

Flow Control

XON/XOFF (Software)

CTS/RTS (Hardware)

Management

HTTP

SNMP

Serial login

Telnet login

Security

Optional 256-bit AES

Password protection

System Software

Flash ROM standard:
downloadable from a TCP/IP host (TFTP)
or over serial port

Diagnostic LEDs

Serial Channel Status

Ethernet Link Status

Diagnostic Information

Compatibility

Ethernet: Version 2.0/IEEE 802.3

Power Requirements

5 VDC +/-5% at ~ 200 mA

Memory

Flash: 512K

RAM: 256K - zero wait

Environmental

Standard Temperature

0° to 70°C (32° to 158°F)

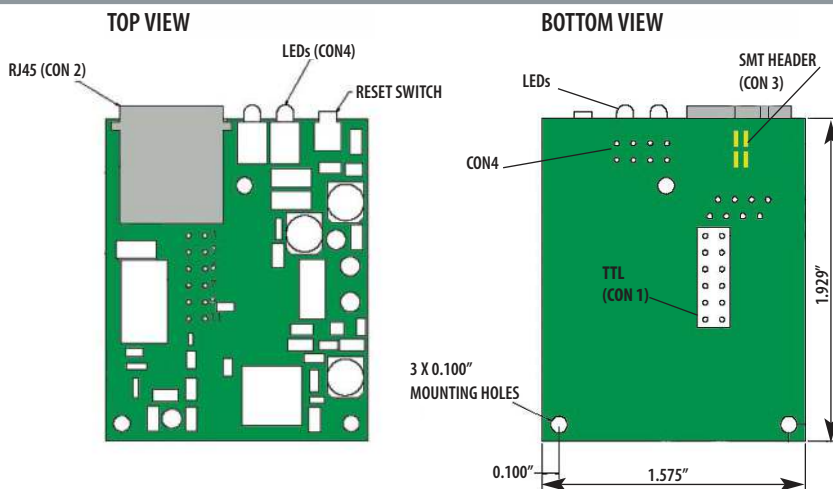
Storage Temperature

-40° to 85°C (-40° to 185°F)

Physical Dimensions (W x H)

49 x 40 mm (1.929 x 1.575 in)

Board Layout and Pinouts



CON1 (2 x 6 Pins)TTL

| Pin | Function |
|-----|----------------|
| 1 | +5V |
| 2 | GND |
| 3 | RXA (Input) |
| 4 | TXA (Output) |
| 5 | RTSA (Output) |
| 6 | DTRA (Output) |
| 7 | CTSA (Input) |
| 8 | DCDA (Input) |
| 9 | R/V/A (Output) |
| 10 | RESET |
| 11 | RXB (Input) |
| 12 | TXB (Output) |

CON2 (RJ45)

| Pin | Con1 |
|-----|------|
| 1 | TX+ |
| 2 | TX- |
| 3 | RX+ |
| 4 | NC |
| 5 | NC |
| 6 | RX- |
| 7 | NC |
| 8 | NC |

CON3 (2 x 2 SMT in place of RJ45)

| Pin | Function |
|-----|----------|
| 1 | TX+ |
| 2 | TX- |
| 3 | RX+ |
| 4 | RX- |

CON4 (2 x 4 pins in place of LEDs)

| Pin | Function |
|-----|--------------|
| 1 | +3.3V |
| 2 | +3.3V |
| 3 | DIAG (Red) |
| 4 | CH1 (Green) |
| 5 | +3.3V |
| 6 | +3.3V |
| 7 | CH2 (Yellow) |
| 8 | Link (Green) |

Warranty

2-year limited warranty

Ordering Information

| Part Number | Description |
|---------------|---|
| M000AA003-01R | Micro125, No RJ45 connector, No LEDs, with TTL pin header, RoHS |
| M000AA0E3-01R | AES Encrypted Micro125, No RJ45 connector, No LEDs, with TTL pin header, RoHS |
| M011AA003-01R | Micro125 with RJ45 connector, LEDs, with TTL pin header, RoHS |
| M011AA0E3-01R | AES Encrypted Micro125 with RJ45 connector, LEDs, with TTL pin header, RoHS |
| M022AA003-01R | Micro125, Pin header for Ethernet, Pin header for LED connection, with TTL pin header, RoHS |
| M022AA0E3-01R | AES Encrypted Micro125, Pin header for Ethernet, Pin header for LED connection, with TTL pin header, RoHS |

